

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A method for improving the reliability of a channel quality indicator (CQI) message in a wireless communications network, comprising ~~the steps of:~~

- a) receiving the CQI message;
- b) decoding the CQI message;
- c) computing a decision metric value for each symbol in the CQI message;
- d) determining a largest decision metric value;
- e) determining a second largest decision metric value; and
- f) determining the reliability of the CQI message by comparing the values obtained in steps (d) and (e).

2. (Currently amended) The method of claim 1, further comprising ~~the steps of:~~

- g) counting a number of erroneous CQI messages received over a time interval;

h) at the end of the time interval, comparing the number of erroneous CQI messages with a threshold value; and

i) if the number of erroneous CQI messages exceeds the threshold value, then signaling a radio network controller to adjust the transmission power of a wireless transmit/receive unit which sent the CQI messages.

3. (Currently amended) The method of claim 1, further comprising ~~the steps of:~~

g) counting a number of erroneous CQI messages received;

h) comparing the number of erroneous CQI messages with a threshold value;

i) if the number of erroneous CQI messages exceeds the threshold value, then signaling a radio network controller to adjust the transmission power of a wireless transmit/receive unit which sent the CQI messages; and

j) if the number of erroneous CQIs does not exceed the threshold value, then repeating the method ~~starting from step (a)~~ for the next CQI.

4. (Currently amended) The method of claim 1, further comprising ~~the step of:~~

g) discarding the CQI message when the comparison fails to meet a given criteria.

5. (Currently amended) The method of claim 4, wherein the criteria ~~in step (g)~~ is if the difference between the largest decision value and the second largest decision value is less than a predetermined value.

6. (Original) The method of claim 5, wherein the predetermined value is between 0 dB and 2 dB.

7. (Original) The method of claim 5, wherein the predetermined value is less than 1 dB.

8. (Currently amended) The method of claim 4, wherein the criteria ~~in step (g)~~ is if the ratio of the second largest decision value to the largest decision value is greater than a predetermined value.

9. (Currently amended) The method of claim 1, further comprising ~~the step of:~~

g) periodically reporting via an Iub message a total number of CQI messages received, a number of false CQI messages received, and a number of CQI messages missed over a fixed time period.

10. (Currently amended) A method for improving the reliability of a received message representing quality of a transmission channel in a wireless communication system, comprising ~~the steps of:~~

- a) receiving a channel quality indicator (CQI) message from a wireless transmit and receive unit (WTRU);
- b) decoding the CQI message;
- c) obtaining at least two different values representative of the decoded CQI message; and
- d) comparing the at least two values to determine the reliability of the CQI message.

11. (Currently amended) The method of claim 10, further comprising ~~the step of:~~

- e) taking an action based upon the results of ~~step (d)~~ the comparing.

12. (Currently amended) The method of claim 11, wherein ~~step (e)~~ the action includes providing outer loop power control.

13. (Original) The method of claim 10, wherein step (c) includes deriving the at least two values as representing a largest magnitude of a decision metric and a second largest magnitude of the decision metric.

14. (Original) The method of claim 13, wherein step (d) includes calculating a difference between the decision metric having the largest magnitude and the decision metric having the second largest magnitude, in decibels.

15. (Original) The method of claim 10, wherein step (d) includes calculating a ratio of the energy of the decision metric having a largest magnitude to the sum of the energy of all other decision metrics.

16. – 22. (Canceled)

23. (Currently amended) A base station for determining the quality of a transmission channel in a wireless communication system, the system including at least one wireless transmit and receive unit ~~having generating means for~~

~~generating~~ configured to generate a channel quality indicator (CQI), said base station comprising:

~~receiving means for receiving~~ a receiver configured to receive the CQI;

~~decoding means for decoding~~ a decoder configured to decode the CQI;

~~computing means for computing~~ a processor configured to compute a first decision metric and a second decision metric of the decoded CQI; and

~~comparing means for comparing~~ a comparator configured to compare the first and second decision metrics to determine if the CQI contains an error.

24. (Currently amended) The base station according to claim 23, ~~wherein said processor is further comprising action means for performing~~ configured to perform an action responsive to a given number of CQI errors received by said base station.

25. (Currently amended) The base station according to claim 24, wherein said ~~action means includes means for providing~~ processor is configured to provide outer loop power control.

26. (Original) The base station according to claim 23, wherein the first and second decision metrics are a largest decision metric and a second largest decision metric, respectively.

27. (Currently amended) The base station according to claim 23, wherein said ~~comparing means includes calculating~~ comparator is configured to calculate a ratio of the first and second decision metrics.

28. (Currently amended) The base station according to claim 23, wherein said ~~comparing means includes calculating~~ comparator is configured to calculate a difference between the first and second decision metrics.

29. (Currently amended) An integrated circuit, comprising:
an input configured to receive a channel quality indicator (CQI) message;
~~decoding means for decoding~~ a decoder configured to decode the CQI message;
~~computing means for computing~~ a processor configured to compute a first decision metric and a second decision metric of the decoded CQI message; and
~~comparing means for comparing~~ a comparator configured to compare the first and second decision metrics to determine if the CQI message contains an error.

30. (Original) The integrated circuit according to claim 29, wherein the first and second decision metrics are a largest decision metric and a second largest decision metric, respectively.

31. (Currently amended) The integrated circuit according to claim 29, wherein said ~~comparing means includes calculating~~ comparator is configured to calculate a ratio of the first and second decision metrics.

32. (Currently amended) The integrated circuit according to claim 29, wherein said ~~comparing means includes calculating~~ comparator is configured to calculate a difference between the first and second decision metrics.

33. (Original) An integrated circuit, comprising:
an input configured to receive a channel quality indicator (CQI) message;
a Reed-Muller decoder for decoding the CQI message;
a compute decision metric device for computing a first decision metric and a second decision metric of the decoded CQI message; and
a compare decision metric device for comparing the first and second decision metrics to determine if the CQI message contains an error.

34. (Original) The integrated circuit according to claim 33, wherein the first and second decision metrics are a largest decision metric and a second largest decision metric, respectively.

35. (Original) The integrated circuit according to claim 33, wherein said compare decision metric device calculates a ratio of the first and second decision metrics.

36. (Original) The integrated circuit according to claim 33, wherein said compare decision metric device calculates a difference between the first and second decision metrics.

37. (New) A method for determining a channel quality in a wireless communication system, comprising:

receiving a high speed shared control channel (HS-SICH) transmission;

counting a total number of HS-SICH transmissions;

counting a number of failed HS-SICH transmissions;

counting a number of missed HS-SICH transmissions; and

periodically reporting the total number of HS-SICH transmissions, the number of failed HS-SICH transmissions, and the number of missed HS-SICH

transmissions over a fixed time period, whereby the reporting is an indication of the channel quality.

38. (New) A base station configured to determine a channel quality, comprising:

a receiver configured to receive a high speed shared control channel (HS-SICH) transmission;

a counter configured to count a total number of HS-SICH transmissions, a number of failed HS-SICH transmissions, and a number of missed HS-SICH transmissions; and

a reporting device configured to periodically report the total number of HS-SICH transmissions, the number of failed HS-SICH transmissions, and the number of missed HS-SICH transmissions over a fixed time period, whereby the report is an indication of the channel quality.

39. (New) A base station configured to determine a channel quality, comprising:

a receiver configured to receive a high speed shared control channel (HS-SICH) transmission;

a first counter configured to count a total number of HS-SICH transmissions;

a second counter configured to count a number of failed HS-SICH transmissions;

a third counter configured to count a number of missed HS-SICH transmissions; and

a reporting device configured to periodically report the values of said first counter, said second counter, and said third counter over a fixed time period, whereby the report is an indication of the channel quality.

40. (New) A wireless transmit/receive unit (WTRU), comprising:

a transmitter configured to transmit a plurality of high speed shared control channel (HS-SICH) transmissions;

a receiver configured to receive a power control command, the power control command being derived by counting a total number of HS-SICH transmissions, counting a number of failed HS-SICH transmissions, counting a number of missed HS-SICH transmissions, and comparing the counted values to a predetermined threshold; and

a transmission power adjusting device configured to adjust an uplink transmission power of the WTRU based on the power control command.